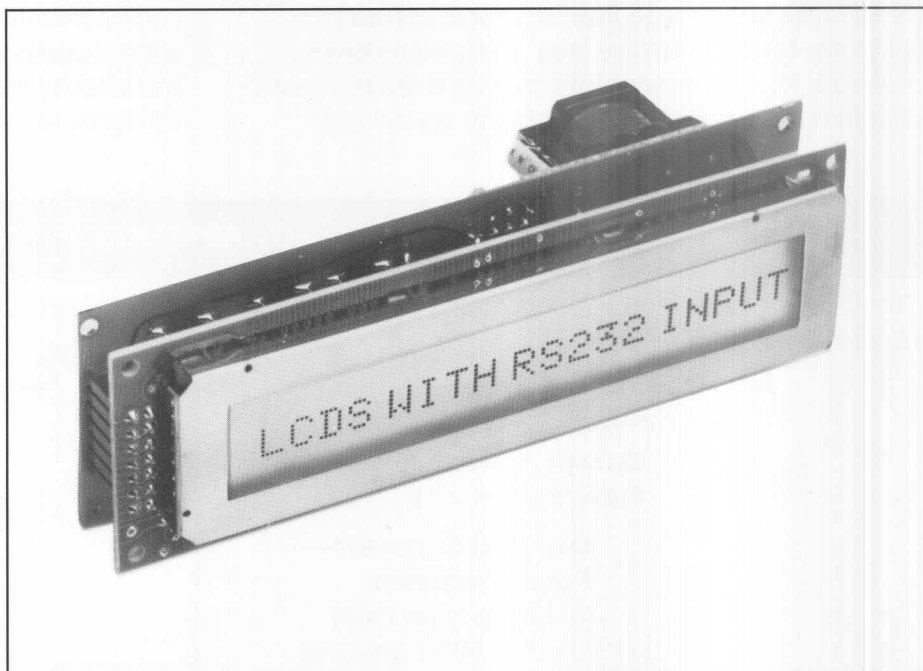


RS232 CONTROLLER CARD FOR LCD CHARACTER MODULES SA SERIES

CATALOG NO. RS232

The SA Series of RS232 interface cards allows any Densitron character module and small graphic LCD* to be operated from any RS232 serial port. The SA card provides all the necessary control signals required by the on-board controller on the LCD module. The card uses unique software codes to perform all the functions required to operate the LCD. The SA card is located near the LCD which can be located up to 100 feet from the user system. The SA cards will allow two LCD modules to be controlled independently from a single RS232 port. The SA Series are available in four sizes which allow the cards to be mechanically mounted to the back of selected Densitron LCD modules.



SPECIAL OPTIONS

The SA Series are available with three options which allow any of the following three functions to be performed by the card:

- Contrast adjustment for the LCD to be made on the card
- EL power inverter fitted on the card (for EL backlights)
- – 5VDC generated for use with Supertwist, 'H' and 'W' option LCD modules
- TTL or RS422 input available on request (Consult factory for more details)

FEATURES

- Simple 3-wire operation
- Software controlled EL or LED backlight
- Baud rates up to 9600
- Easy interface to any RS232 port

APPLICATION BENEFITS

- Use with any PC-controlled LCD application
- Allows remote operation of all LCD character modules
- Connect two LCD modules to a single RS232 channel (Consult factory for more details)

ENVIRONMENTAL SPECIFICATIONS

- Voltage: +5VDC
- Power: 1.25W (excluding LCD power)
- Operating Temperature: –20°C to 70°C
- Storage Temperature: –40°C to 70°C
- Humidity: 0 to 95% non-condensing

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*operation with a small graphic LCD requires an additional card.

SPECIFICATIONS

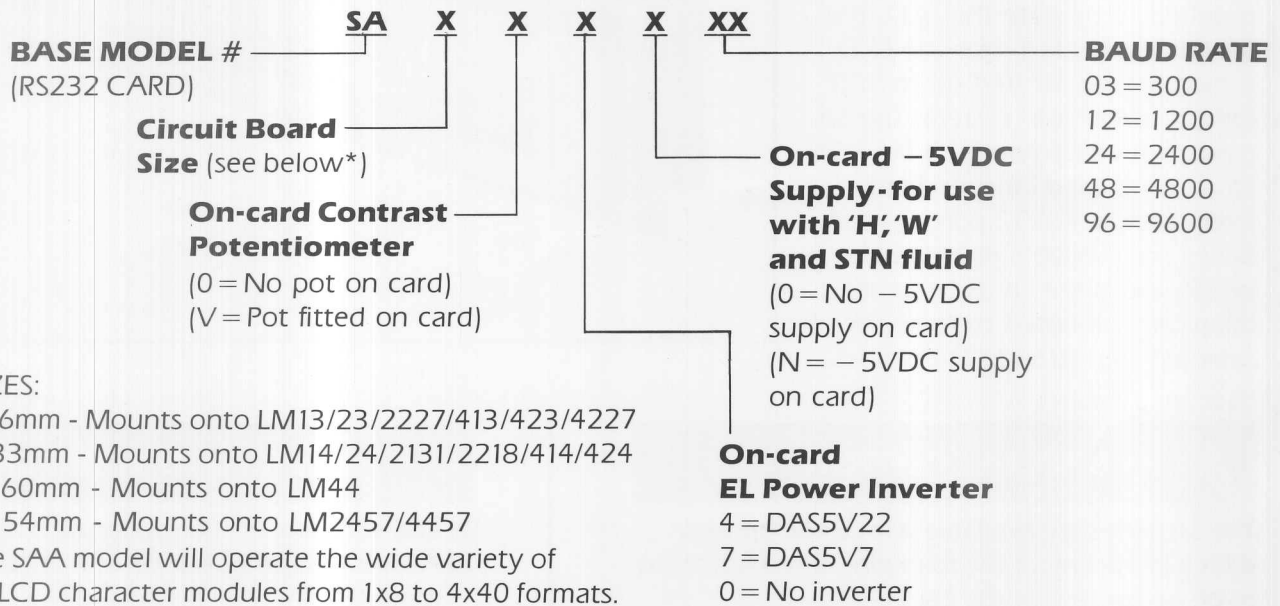
HARDWARE DESCRIPTION

The SA Series is developed around two powerful Signetics Programmable Logic Array chips (PLA). The PLA chips contain high intensity logic circuitry to minimize the PCB surface area. The card receives standard RS232 signals and converts them to signals required by the HD44780 controller on the LCD

module. The card uses a library of unique software codes to communicate with the host computer. Each code performs a separate function on the LCD. Six special codes exist which allow software control of the backlight on the LCD and the generation of the RS signal required by the HD44780 LCD controller.

ORDERING INFORMATION

The following information explains the model number system for the RS232 cards and the displays which can be used.



*CARD SIZES:

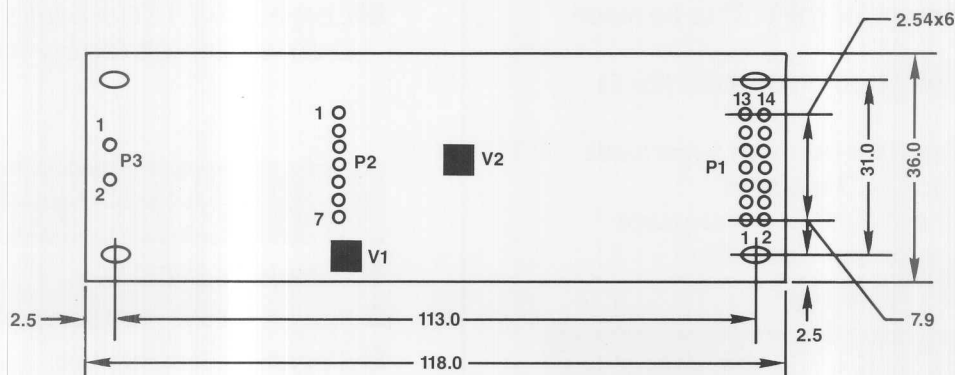
"A" 118 x 36mm - Mounts onto LM13/23/2227/413/423/4227

"B" 182 x 33mm - Mounts onto LM14/24/2131/2218/414/424

"C" 215 x 60mm - Mounts onto LM44

"D" 190 x 54mm - Mounts onto LM2457/4457

NOTE: The SAA model will operate the wide variety of Densitron LCD character modules from 1x8 to 4x40 formats.



V1 - Contrast adjustment (optional)
V2 - Factory adjustment only

SAXXX
Component Side

All dimensions are in millimeters.
All specifications subject to change without notice.



DENSITRON CORPORATION

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FAX: (03) 767-9709 ■ TELEX: J26914 DENSITRO J



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